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SEQUENCE LISTING

(1)

GENERAL INFORMATION

- (i) APPLICANT: ELAZAR RABBANI  
JANNIS G. STAVRIANOPOULOS  
JAMES J. DONEGAN  
DAKAI LIU  
NORMAN E. KELKER  
DEAN L. ENGELHARDT
- (ii) TITLE OF INVENTION: NOVEL PROPERTY EFFECTING  
AND/OR PROPERTY EXHIBITING COMPOSITIONS FOR  
THERAPEUTIC AND DIAGNOSTIC USE
- (iii) NUMBER OF SEQUENCES: 42
- (iv) CORRESPONDENCE ADDRESS:  
(A) ADDRESSEE: ENZO THERAPEUTICS, INC.  
(B) STREET: C/O ENZO BIOCHEM, INC.  
527 MADISON AVENUE,  
9<sup>TH</sup> FLOOR  
(C) CITY: NEW YORK  
(D) STATE: NY  
(E) COUNTRY: USA  
(F) ZIP: 10022
- (v) COMPUTER READABLE FORM:  
(A) MEDIUM TYPE: 3.5" Micro Floppy Disk. 1.44 KB  
STORAGE  
(B) COMPUTER: IBM PC/XT/AT, IBM PS/2 OR COMPATIBLES  
(C) OPERATING SYSTEM: PC-DOS  
(D) SOFTWARE: MICROSOFT WORD \_\_\_\_ - ASCII TEXT (DOS)
- (vi) CURRENT APPLICATION DATA:  
(A) APPLICATION NUMBER: US 08/978,634  
(B) FILING DATE: 25-NOVEMBER-1997  
(C) CLASSIFICATION: Not Yet Known
- (viii) ATTORNEY/AGENT INFORMATION:  
(A) NAME: FEDUS, RONALD C.  
(B) REGISTRATION NUMBER: 32,567  
(C) REFERENCE/DOCKET NUMBER: ENZ-53(D2)
- (ix) TELECOMMUNICATION INFORMATION:  
(A) TELEPHONE: (212) 583-0100  
(B) TELEFAX: (212) 583-0150

(2)

INFORMATION FOR SEQ ID NO: 1

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 20 amino acids  
(B) TYPE: amino acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear



Sub  
D7  
C1

- (ii) MOLECULE TYPE: peptide
- (iii) HYPOTHETICAL: NO
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

Gly Phe Phe Gly Ala Ile Ala Gly Phe Leu Glu Gly Gly Trp Glu Gly  
 1 10 15  
 Met Ile Ala Gly  
 20

(3) INFORMATION FOR SEQ ID NO. 2:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 20 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TGCTCTCTAA GGGTCTACTC  
 20

(4) INFORMATION FOR SEQ ID NO. 3:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

CTCTAAGGTA AATAT  
 15

(5) INFORMATION FOR SEQ ID NO. 4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 16 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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D7  
Cont  
C1*

- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TGTATTTTAG ATTCAA  
16

(6) INFORMATION FOR SEQ ID NO. 5:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

TGCTCTCTAA GGTAATAT  
19

(7) INFORMATION FOR SEQ ID NO. 6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TGTATTTTAG GGTCTACTC  
19

(8) INFORMATION FOR SEQ ID NO. 7:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 19 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: mRNA

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D7  
Cont.  
C4*

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

UGCUCUCUAA GGUAAAUAAU  
19

(9) INFORMATION FOR SEQ ID NO. 8:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 19 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: mRNA

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

UGUAUUUUAG GGUCUACUC  
19

(10) INFORMATION FOR SEQ ID NO. 9:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 20 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: mRNA

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

UGCUCUCUAA GGGUCUACUC  
20

(11) INFORMATION FOR SEQ ID NO. 10:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 49 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid  
(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

*Sub  
D7  
cont.  
C1*

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

GGAATTCGTC TCGAGCTCTG ATCACCACCA TGGACACGAT TAACATCGC  
49

(12) INFORMATION FOR SEQ ID NO. 11:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 55 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

GACTAGTTGG TCTCGTCTCT TTTTGGAGG AGTGTCGTTT TTAGCGATGT TAATC  
55

(13) INFORMATION FOR SEQ ID NO. 12:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 46 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

GGAATTCGTC TCGGAGAAAG GTAAAATTCT CTGACATCGA ACTGGC  
46

(14) INFORMATION FOR SEQ ID NO. 13:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 33 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"

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D  
Cont.*

*C1*

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

GACTAGTGGT CTCCCCTTAG AGAGCATGTC AGC  
33

(15) INFORMATION FOR SEQ ID NO. 14:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 33 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

GGAATTCGGT CTCGGGTCTA CTCGGTGGCG AGG  
33

(16) INFORMATION FOR SEQ ID NO. 15:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

GACTAGTCGT TACGCGAACG CAAAGTC  
27

(17) INFORMATION FOR SEQ ID NO. 16:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

Sub  
D  
Cont

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

GGAATTCGTC TCTAAGGTAA ATATAAAATT TTAAAG  
36

(18) INFORMATION FOR SEQ ID NO. 17:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

GACTAGTCGT CTCTGACCCT AAAATACACA AACAATTAGA  
40

(19) INFORMATION FOR SEQ ID NO. 18:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 92 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

GGAATTCGTC TCGAGCTCTG ATCACCACCA TGGACACGAT TAACATCGCT  
AAGAACGACA 60

CTCCTCCAAA AAAGAGACGA GACCAACTAG TC  
92

(20) INFORMATION FOR SEQ ID NO. 19:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 46 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

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Cont  
C1



- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GGAATTCGTC TCGGAGAAAG GTAAAATTCT CTGACATCGA ACTGGC  
46

(21) INFORMATION FOR SEQ ID NO. 20:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 106 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

GGAATTCGTC TCGAGCTCTG ATCACCACCA TGGACACGAT TAACATCGCT  
AAGAACGACA 60

CTCCTCCAAA AAAGAGAAAG GTAAAATTCT CTGACATCGA ACTGGC  
106

(22) INFORMATION FOR SEQ ID NO. 21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 50 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: DNA (genomic)
- (iii) HYPOTHETICAL: NO
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

ATGGACACGA TTAACATCGC TAAGAACGAC TTCTCTGACA TCGAACTGGC  
50

(23) INFORMATION FOR SEQ ID NO. 22:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 77 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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D  
cont  
C<sup>1</sup>

(ii) MOLECULE TYPE: DNA (genomic)

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

ATGGACACGA TTAACATCGC TAAGAACGAC ACTCCTCCAA AAAAGAGAAA  
GGTAAAATTC 60

TCTGACATCG AACTGGC  
77

(24) INFORMATION FOR SEQ ID NO. 23:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 69 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

GATCATTAGA CCAGATCTGA GCCTGGGAGC TCTCTGGCTA ACTAGGGAAC  
CCACTGCTTA 60

AGCCTCAAG  
69

(25) INFORMATION FOR SEQ ID NO. 24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 69 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

GATCCTTGAG GCTTAAGCAG TGGGTTCCCT AGTTAGCCAG AGAGCTCCCA  
GGCTCAGATC 60

TGGTCTAAT  
69

C<sup>1</sup>  
Sub  
D<sub>7</sub>  
Cent

## (26) INFORMATION FOR SEQ ID NO. 25:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 61 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

GATCACCTTA GGCTCTCCTA TGGCAGGAAG AAGCGGAGAC AGCGACGAAG  
 ACCTCCTCAA 60

G  
 61

## (27) INFORMATION FOR SEQ ID NO. 26:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 61 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GATCCTTGAG GAGGTCTTCG TCGCTGTCTC CGCTTCTTCC TGCCATAGGA  
 GAGCCTAAGG 60

T  
 61

## (28) INFORMATION FOR SEQ ID NO. 27:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 62 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"

C<sup>1</sup>  
 Sub  
 D  
 Cont

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

GATCATAGTG AATAGAGTTA GGCAGGGATA CTCACCATT A TCGTTTCAGA  
 CCCACCTCCC 60

AG  
 62

(29) INFORMATION FOR SEQ ID NO. 28:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 62 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

GATCCTGGGA GGTGGGTCTG AAACGATAAT GGTGAGTATC CCTGCCTAAC  
 TCTATTCACT 60

AT  
 62

(30) INFORMATION FOR SEQ ID NO. 29:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 30 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(iv) ORIGINAL SOURCE:  
 (A) ORGANISM: TER-1

(x) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

AATCTAGAGC TAACAAAGCC CGAAAGGAAG  
 30

C<sup>1</sup>  
 Sub  
 D7  
 cont

## (31) INFORMATION FOR SEQ ID NO. 30:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 28 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

TTCTGCAGAT ATAGTTCCTC CTTTCAGC  
28

## (32) INFORMATION FOR SEQ ID NO. 31:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 70 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

TCGAGCCATG GCTTAAGGAT CCGTACGTCC GGAGCTAGCG GGCCCATCGA  
TACTAGTTAA 60  
ATGCAGATCT  
70

## (33) INFORMATION FOR SEQ ID NO. 32:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 70 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

C<sup>1</sup>  
Sub  
D7  
cont

CTAGAGATCT GCATTAACT AGTATCGATG GGCCCGCTAG CTCCGGACGT  
ACGGATCCTT 60

AAGCCATGGC  
70

(34) INFORMATION FOR SEQ ID NO. 33:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 29 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

CATGAAATTA ATTCGACTCA CTATACGGA  
29

(35) INFORMATION FOR SEQ ID NO. 34:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 29 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

TTTAATTAAG CTGAGTGATA TGCCTCTAG  
29

(36) INFORMATION FOR SEQ ID NO. 35:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 72 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: single
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
  - (A) Description: /desc = "oligonucleotide"

C<sup>1</sup>  
Sub  
D<sub>7</sub>  
cont.

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

GATCCGGATT GAGGCTTAAG CAGTGGGTTC CCTAGTTAGC CAGAGAGCTC  
CCAGGCTCAG 60

ATCTGGTCTA AT  
72

(37) INFORMATION FOR SEQ ID NO. 36:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 72 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid  
(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

CCGGATTAGA CCAGATCTGA GCCTGGGAGC TCTCTGGCTA ACTAGGGAAC  
ECACTGCTTA 60

AGCCTCAATC CG  
72

(38) INFORMATION FOR SEQ ID NO. 37:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 66 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid  
(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GATCCGGACC TTGAGGAGGT CTTCGTCGCT GTCTCCGCTT CTCCTGCCA  
TAGGAGAGCC 60

TAAGGT  
66

(39) INFORMATION FOR SEQ ID NO. 38:

C<sup>4</sup>  
  
Sub  
D7  
ant

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 66 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

CCGGACCTTA GGCTCTCCTA TGGCAGGAAG AAGCGGAGAC AGCGACGAAG  
 ACCTCCTCAA 60

GGTCCG  
 66

(40) INFORMATION FOR SEQ ID NO. 39:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 65 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES
- (ix) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

GATCCGGATG GGAGGTGGGT CTGAAACGAT AATGGTGAGT ATCCCTGCCT  
 AACTCTATTC 60

ACTAT  
 65

(41) INFORMATION FOR SEQ ID NO. 40:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 65 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid  
 (A) Description: /desc = "oligonucleotide"
- (iii) HYPOTHETICAL: YES

C<sup>1</sup>

Sub  
 D7  
 Cont



(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

CCGGATAGTG AATAGAGTTA GGCAGGGATA CTCACCATTA TCGTTTCAGA  
CCCACCTCCC 60

ATCCG  
65

(42) INFORMATION FOR SEQ ID NO. 41:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 67 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid  
(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GATCAGCATG CCTGCAGGTC GACTCTAGAC CCGGGTACCG AGCTCGCCCT  
ATAGTGAGTC 60

GTATTAT  
67

(43) INFORMATION FOR SEQ ID NO. 42:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 67 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: single  
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid  
(A) Description: /desc = "oligonucleotide"

(iii) HYPOTHETICAL: YES

(ix) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

CCGGATAATA CGACTCACTA TAGGGCGAGC TCGGTACCCG GGTCTAGAGT  
CGACCTGCAG 60

GCATGCT  
67

C<sup>1</sup>  
  
Sub  
D7  
cont

c:\lc\sequencelisting.102198.enz-53(d4)

C Small

Sub  
D  
cont.